# POLICY AND COMMUNICATIONS BULLETIN
## THE CLINICAL CENTER

Medical Administrative Series

M95-1 (rev.) 18 October 2000

MANUAL TRANSMITTAL SHEET

SUBJECT: Emergency Medical Services

1. Explanation of Material Transmitted: This manual issuance updates the policy of the Clinical Center regarding the provision of emergency medical services within the building. The revised policy was approved by the Medical Executive Committee on 17 October 2000.

2. Material Superseded: MAS No. M95-1, dated 1 March 1995

3. Filing Instructions: "Other" Section

   Remove: No. M95-1, dated 1 March 1995

   Insert: No. M95-1 (rev.), dated 18 October 2000

DISTRIBUTION

Physicians, Dentists, and Other Practitioners Participating in Patient Care
Chief, Fire and Emergency Response Section, EMB, DS, NIH

# POLICY AND COMMUNICATIONS BULLETIN
## THE CLINICAL CENTER

Medical Administrative Series

M95-1 (rev.) 18 October 2000

SUBJECT: Emergency Medical Services

PURPOSE

To outline the scope of emergency medical services provided within the Clinical Center.

POLICY

The Clinical Center provides Level IV emergency services to adults and children by offering reasonable care in determining whether an emergency exists, rendering lifesaving first aid, and making appropriate referrals to the nearest appropriate location capable of providing needed services, including outside facilities.

CONSIDERATIONS AND RELATED ISSUES

The Clinical Center does not have an emergency department offering comprehensive emergency care. "Code Blue" procedures have been established to respond to calls for emergency medical assistance.

PROCEDURES

I. RESPONSIBILITY FOR EMERGENCY MEDICAL SERVICES:

A. Emergency medical services provided to patients, employees, and visitors in the Clinical Center are under the direction of the Chief, Critical Care Medicine Department (CCMD) or his designee. The Chief/designee ensures that quality, safety, and appropriateness of emergency medical care is monitored and evaluated, and that follow-up action is taken. Nursing staff performance and training are under the direction of the Chief, Critical and Acute Care Patient Services (CACPS), CC.

B. When an emergency occurs anywhere in the Clinical Center, people on the scene should administer first aid or Basic Life Support (BLS), when appropriate. Emergency resuscitative equipment boxes containing gloves and Laerdal resuscitation masks are located at most elevator banks and in other public areas throughout the Clinical Center. In any type of medical emergency, the procedure for calling a "Code Blue" should be initiated. When the members of the Clinical Emergency Response Team (C.E.R.T., formerly known as "Code Blue Team") arrive, they identify themselves and assume responsibility. The first physician from the C.E.R.T. to arrive is responsible for initiating care of the victim. The CCMD physician is responsible for directing all activities. All individuals already on the scene should immediately relinquish care of the victim to the C.E.R.T.

## II. EMERGENCY PROCEDURES AND PERSONNEL

### A. ACTIVATING THE C.E.R.T.

The C.E.R.T. is activated by dialing 111, which accesses the emergency paging system. CC Telecommunications will dispatch the C.E.R.T. to respond to all actual or potential life-threatening medical emergencies within the CC. For assistance with non-life-threatening emergencies, or for fire or police assistance, 911 should be dialed. Dialing 911 connects the caller with the NIH Emergency Dispatch Center, who will notify the fire or police departments as necessary.

### B. C.E.R.T. MEMBERS

1. The C.E.R.T. consists of a minimum of 3 physicians (one from CCMD, one from NCI's Surgical Oncology/ Immunotherapy Branch, and one from NHLBI), 2 critical care nurses, and 2 respiratory therapists.

2. Members of the C.E.R.T. receive continuing education as part of their roles at the CC. In addition, physician C.E.R.T. members are BLS and Advanced Cardiac Life Support (ACLS) trained. Nursing C.E.R.T. members are BLS trained and have Code Blue response competencies revalidated annually.

### C. C.E.R.T. RESPONSIBILITIES

1. Physicians

The C.E.R.T. physicians are responsible for overall medical direction of the C.E.R.T. and the emergency care provided. The CCMD physician assumes the official leadership position of the C.E.R.T. Physicians may perform full ACLS interventions including, but not limited to, defibrillation, endotracheal intubation, tracheostomy, arterial blood sampling, percutaneous pacemaker insertion, and other support adjuncts.

2. Nurses

   The C.E.R.T. nurses are responsible for providing emergency medical care under the direction of the C.E.R.T. physicians. In the event that the nurse is the first responder he/she will initiate BLS. In the adult population the nurse may implement care as outlined by the ICU Emergency Orders. Certified code team nurses provide emergency interventions consistent with the Nursing Department competency program.

3. Respiratory Therapists

   Respiratory therapists are responsible for administering BLS and assisting with airway maintenance and oxygen delivery under the direction of the physician leader of the C.E.R.T. In addition, they are responsible for obtaining 12 - lead EKG and pulse oximetry measurements, as well as emergency laboratory measurements via iSTAT, as ordered by the physician leader of the C.E.R.T.

4. Ancillary C.E.R.T. Members:

   a. Police

      The NIH Police Department is responsible for traffic control and facilitating communication with various Clinical Center departments.

   b. Fire Department

      The NIH Fire Department ambulance responds to all calls in Building 10 that are not on patient care areas and is available to transport the victim to another facility, as necessary. For details, refer to the ‘Memorandum of Understanding Between the NIH Fire Department and the Clinical Center Code Team’ maintained by the CPR Committee.

c. Messenger and Escort

Two messenger and escort personnel are directed by their office to respond to any “Code Blue” signal. Messengers are responsible for obtaining equipment (e.g., wheelchairs, IV pumps, etc.), taking blood specimens to the laboratory, obtaining medications from the Pharmacy, and assisting with transportation of the victim as directed by the C.E.R.T.

d. Clinical Pathology

Blood specimens bearing the special “Code Blue” stickers are given top priority. Results are called back to the Medical Intensive Care Unit (10-D MICU) or to the phone number on the acquisition sheet. A C.E.R.T. member may call Clinical Pathology for results.

e. Telecommunications

Telecommunications is responsible for receiving emergency calls, obtaining necessary information, and activating the C.E.R.T. via the beeper system and overhead paging. The emergency page operator communicates with the NIH 911 Emergency Dispatch as necessary to coordinate appropriate services.

Every Thursday at 1:00 p.m., the emergency page operator initiates a “Code Blue Test.” Each C.E.R.T. member who carries a code beeper is responsible for assuring his/her beeper is properly functioning. During normal working hours, problems with code beepers should be directed to Telecommunications. In the event that a beeper problem occurs during off-hours, a spare beeper may be obtained from the page operator. It is the responsibility of the borrower to have his/her beeper repaired and to return the spare beeper to the operators as soon as possible.

f. Central Hospital Supply (CHS)

A back-up (off-unit) ACLS cart is stocked and stored in CHS. CHS is responsible for delivering the back-up cart to the designated ICU (the ICU

responsible for maintaining the ACLS cart) immediately after the "Code Blue" page is heard. A nurse must inspect the back-up cart upon its arrival to the ICU to ensure that it is appropriately stocked.

g. Pharmacy

The ICU receiving the back-up cart must notify the pharmacy department to send a Code Blue ICU drug tray for the new cart. The ICU nurse is also responsible for restocking the side drawers of the ACLS cart where "first line" resuscitation drugs are kept. Once it is determined that the cart is intact, the cart will be locked according to the locking procedure (Refer to section V.B.)

h. Elevators

Elevators #1 and #15 carry a Code Blue beeper and respond to all Code Blue calls. Elevator #1 moves to the floor where the ACLS cart is kept to transport the C.E.R.T. members and cart to the floor of the emergency. Elevator #15 moves to the floor of the ICU that does not have the ACLS cart and delivers the C.E.R.T. members to the floor of the emergency. Both elevators remain at the floor of the emergency and are available to transport members of the C.E.R.T. as directed. Elevator #15 normally transports the victim and the C.E.R.T. to the appropriate floor as directed. The elevators are considered on 'Code Blue' call until dismissed by the Police or a C.E.R.T. member.

An elevator key is kept on the ACLS cart for use in the event that an elevator is unavailable or does not respond. The C.E.R.T. nurse may use the key to access the elevator on both the 2$^{nd}$ and 10$^{th}$ floors and may hold the elevator at the floor of the emergency since Code Blue key access is not available on all floors.

D. Documentation and Medical Records

The Emergency Response Record (NIH-2253 Form) is used to document the acute emergency. All medical, nursing, and respiratory care, including assessment, interventions and

drug administration must be documented on this record. The original (white copy) remains with the victim, and the yellow copy is sent to the Chair of the CPR committee or his/her designee. In addition, the NIH ICU flowsheet and progress notes may be used to document the medical and nursing care of victims. In the rare event that an ICU flowsheet is required, a messenger at the scene should be sent to an ICU to obtain one.

## III. OCCUPATIONAL MEDICAL SERVICE (OMS) TREATMENT ROOM

A. The OMS treatment room (6C-429) may be used by the C.E.R.T. for triage and stabilization. During the hours of OMS operations, the C.E.R.T. must consult with the OMS charge physician or physician assistant to ensure the availability of the treatment room prior to transporting a victim to OMS. At all other times, the C.E.R.T. may access the treatment room without prior request using the keys kept on the ACLS cart. The OMS treatment room should be used solely for stabilizing a victim prior to transfer or discharge. Therefore, continuous invasive monitoring and administration of general anesthesia may not be performed. Other procedures such as pericardiocentesis or thoracentesis may be performed only in a life-threatening situation.

B. Equipment & Supplies

A defibrillator is available in OMS for use by the C.E.R.T. as needed. The OMS staff is responsible for the daily maintenance of supplies and equipment located in the OMS treatment room.

## IV. DISPOSITION

The CCMD physician from the C.E.R.T. is responsible for directing all activities. The primary goal of the C.E.R.T. is to stabilize the victim and transport/transfer him/her to the appropriate location for definitive treatment and/or further evaluation. The transfer and/or disposition of the victim is determined by the following:

A. Inpatient/Outpatient:

1. If the patient requires immediate attention for a critical condition, he/she is admitted to the Medical Intensive Care Unit (10-D MICU). In the event that the MICU is full, a code bed will be designated in the Surgical Intensive Care Unit (SICU).

2. If an inpatient's condition is not critical, he/she is evaluated by an attending physician from his/her patient care unit or primary service.

3. If an outpatient's condition is not critical but requires further evaluation, the directing C.E.R.T. physician shall contact the patient's attending service for direction on disposition. If necessary, the patient may be stabilized by the C.E.R.T. in the OMS treatment room while awaiting response from the attending (or his/her designee). If there is no response by an attending service physician within 15 minutes, the respective clinical director may be contacted to assume responsibility for the patient. After hours, the physician on call for the service assumes responsibility for patient disposition.

B. Employee/Visitor

1. If the employee/visitor requires immediate attention for a critical condition, he/she is stabilized and transported to the emergency department of an outside facility. If the transport will place the victim at risk for permanent harm or death during transport, the employee/visitor may be transferred to a CC ICU until the C.E.R.T. physician leader judges transport to be safe; interventions will be performed as deemed necessary by the C.E.R.T.

2. During OMS operating hours, an employee/visitor may be transferred to OMS for further evaluation, documentation, and/or disposition if it is anticipated that he/she will be able to return to work or drive him/herself home within one hour of arrival in OMS. Additionally, the OMS charge physician or physician assistant indicates that they have sufficient staffing and space to accept the patient.

3. If the employee/visitor's condition requires medical attention beyond that one-hour time frame, or if OMS is not available, the victim will be transported to an outside facility.

4. If an employee has sustained a work-related injury or illness, it is the responsibility of the employee or

his/her immediate supervisor to notify OMS of the incident.

C. Transport Responsibilities

The C.E.R.T. is responsible for transport of the emergency victim. If the victim requires transport to an outside facility, the following procedures apply:

1. If the ERT physician has declared the victim stable, and the following conditions exist, the victim may be transported by the NIH Fire Department:

   a. no medications have been given

   b. an intravenous infusion line, if present, requires no intervention

   c. no cardiac monitoring is required

2. If the above conditions do not apply, and/or the victim requires further medical attention or monitoring, the NIH Fire Department personnel who respond to the Code Blue call will request an ACLS ambulance and notify the physician leader of the C.E.R.T. of the estimated time of arrival. If an ACLS ambulance is not available and the patient requires immediate transport, the NHLBI physician will accompany the patient via the NIH ambulance.

V. MISCELLANEOUS

A. Pediatric Emergencies

1. In the event of a pediatric emergency, the emergency page operator activates the C.E.R.T. with a “Pediatric Code Blue” signal page. Additional members of the C.E.R.T. are also activated for a “Pediatric Code Blue,” including the Critical Care attending physician covering pediatrics, the on-call pediatrician, and the CC Pediatrician.

2. A MIS generated Pediatric Emergency Drug Sheet (PEDS) is used to calculate the exact dosages of emergency medication for all pediatric patients (defined as less than 18 years of age) who weigh less that 50 kilograms.

   a. A complete “ten generic PEDS” notebook will be kept on the code cart in designated pediatric units and high-risk areas (e.g. Special Procedures).

b. Patient specific PEDS will be generated for pediatric patients as outlined in the NIH Clinical Center Nursing Department policy ["Implementation of Pediatric Emergency Drug Sheet (PEDS)"].

3. Pediatric emergency equipment will be maintained in all ACLS carts and in BLS carts on designated pediatric units and high-risk areas.

B. Supplies and Equipment

1. There are two types of Code Blue Carts within the Clinical Center; they are:

a. BLS carts maintained in clinics, nursing units and some diagnostic areas.

b. ACLS carts maintained in critical care units, special high-risk procedure units/laboratories, and for "Code Blue" emergency calls.

2. All Code Blue Carts will be locked according to the following procedure, in cooperation with the inpatient section of the Clinical Center Pharmacy Department. Code Blue Carts may be opened for the purposes of medical emergencies, training, replacement of expired products or CHS supply checks. New locks are obtained as outlined in the following procedure:

a. Serial numbered breakaway locks will be stored and issued by Pharmacy for the purpose of locking and securing all ACLS and BCLS crash carts. The inpatient section of pharmacy will maintain all documentation records of issued locks, including lock numbers and rationale for lock issuance.

b. The inpatient section of pharmacy will issue a single new lock to an area upon receipt of a MIS request for an ACLS and BCLS lock. The MIS screen is listed under the pharmacy floor stock screens for nursing and physicians.

c. Replacement locks may be either sent by the pneumatic tube system, dumbwaiter or the messenger to the requesting location listed on the MIS request. The initial MIS request will be sent with the serial numbered lock.

d. Requests for locks from the ICU's (10D, 2J) will be forwarded to the critical care specialist or unit dose supervisor. The ICU's will maintain a supply of locks and lock records in the unit medication PYXIS. The ICU's are responsible for maintaining the lock records by documenting lock numbers and rationale for lock changes. The ICU's may obtain ten locks per request by returning the completed lock record to pharmacy and entering a MIS request.

e. ACLS drug trays are stocked and locked by Pharmacy prior to placement on the carts. All lock records for these trays are maintained by Pharmacy.

3. All Code Blue Carts will be restocked and maintained according to the following guidelines:

a. For routine Code Blue Cart Checks:

(1) Check the lock for lock integrity. Verify that lock number is the same number documented at the previous Code Cart Check. If the lock is not secure, or if the lock number is different without notation of change, check the cart's contents and relock the cart.

(2) Check the label on the lock or the front of the cart for date of next item to expire. If the date is not exceeded and the lock is intact, document that the code cart check is complete. If the date is within 24 hours of expiration, break the lock, replace expired items and relock the cart.

(3) For ACLS carts only:

(a) The intubation roll must be opened and checked weekly. Check includes verifying that batteries and bulbs for laryngoscope handles and blades are properly functioning.

(b) The defibrillator must be checked (per manufacturer's recommendations) with each code blue cart check.

(4) Document Code Cart check and current lock number on Code Cart Checklist, form NIH-1355.

If Code Cart check required cart to be relocked, note lock change on Code Cart Checklist.

b. Restocking Carts

(1) Code Carts are to be restocked by the healthcare staff in the designated area following any use of the cart. The exceptions to this are the C.E.R.T. cart and the ICU carts, which are replaced by a fully stocked cart from CHS.

For C.E.R.T. and ICU carts only:

(a) When use of the ACLS cart is complete, the code nurse will secure the cart with a lock prior to returning the cart to CHS.

(b) The back-up ACLS cart will arrive locked from CHS. The receiving nurse must completely check the cart to verify contents, and relock the cart.

(2) When a cart is completely restocked, the date on the item that is first to expire will be written on a piece of white adhesive tape or label by the healthcare staff checking the cart. The cart should be locked per policy and the tape/label placed on the cart lock (ACLS carts) or on the front of the cart, directly under the lock (BLS carts).

(3) In the event that an ACLS drug tray is opened, the responsible healthcare staff will request a new tray from the Pharmacy Department. All drugs used during the code call must be documented either on the Emergency Response Record or ICU Flowsheet. Once the code blue call is completed, the responsible healthcare staff will secure the tray using 'warning tape' (provided in the tray) and place signature and date across the seal. The tray shall be returned to Pharmacy when the replacement tray is delivered.

c. Frequency of Code Blue Cart checks is as follows:

(1) Daily on all patient care units when units are open (BLS carts only).

(2) Once per shift on high-risk patient care units at the beginning of the shift (ACLS carts only).

(3) Daily during clinic hours in the ambulatory care areas.

(4) Daily in diagnostic labs and suites when the areas are to be used for procedures.

4. The CPR Committee is responsible for ongoing evaluation of the code carts and their contents. The CPR Committee must approve all charges made to the contents of the code carts. The contents lists for both BLS and ACLS carts will be maintained by the CPR Committee and Central Hospital Supply. A copy of a current list of contents will be maintained on all carts. The CPR Committee is also responsible for determining the locations of the carts and the types of cart required in each area.

C. Infection Control

The C.E.R.T. will follow CC Epidemiology Service designated policies and procedures for infection control and universal precautions.

D. Quality Improvement

All Code Blue emergency calls are reviewed quarterly by the CPR Committee and bi-annually by the Medical Executive Committee and the Nursing Board. Physician and nursing members of the CPR committee are responsible for the ongoing evaluation of the emergency medical response in the CC.

E. Death

CC policy and procedures are followed for all victim deaths.

F. Simultaneous Codes

In the event of simultaneous codes, the ICU's should refrain from dispatching a second C.E.R.T. until communication with the first C.E.R.T. occurs. A C.E.R.T. nurse will be responsible for either contacting the MICU (10-D) to identify needs for the second code, depending upon the following circumstances:

1. If the patient from the first code is stable, and the nurses, physicians, &/or therapists are free to respond to the second code, there is no need for a back-up team to leave the ICU's to respond.
2. If the patient from the first code is unstable &/or requires attention from the C.E.R.T., an C.E.R.T. nurse will call the MICU (10-D) and indicate that a second code cart and team needs to be dispatched to the second 'Code Blue' call. The MICU will send a back-up C.E.R.T. physician, two nurses, and a therapist to the second call. The back-up nurse will bring the back-up ACLS cart, as directed.